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We claim:

1. A method for modulating the migration of neural progenitor cells comprising exposing the cells to FGF-2 and a VEGFR-2 ligand.

- 2. The method of claim 1, wherein the cells are exposed to the FGF-2 prior to exposure to the VEGFR-2 ligand.
- 3. The method of claim 1, wherein the VEGFR-2 ligand is selected from the group consisting of VEGF, VEGF-E, and VEGF-C/D $_{\Delta N\Delta C}$.
- 4. A method for treating a mammal having a disorder involving loss or injury of neural cells comprising exposing the mammal to a VEGFR-2 ligand and FGF-2 to stimulate migration of neural progenitor cells to the site of neural cell loss or injury.
- 5. The method of claim 4, wherein exposing the mammal to a VEGFR-2 ligand comprises administering a VEGFR-2 ligand to the mammal.
- 6. The method of claim 4, wherein the VEGFR-2 ligand is selected from the group consisting of VEGF, VEGF-E, and VEGF-C/D $_{\Delta N\Delta C}$.
- 7. The method of claim 4, wherein the FGF-2, the VEGFR-2 ligand, or both are administered to the site of neural cell loss or injury.
- 8. The method of claim 4, wherein the neural progenitor cells are transplanted into the mammal.
- 9. The method of claim 8, wherein the cells express VEGFR-1 and VEGFR-2.
- 10. The method of claim 8, wherein the cells do not express PSA-NCAM, doublecortin, NeuN, NG2, A2B5, von Willebrand factor, RECA-1, or any combination thereof.

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11. The method of claim 4, wherein the disorder involving loss or injury of neural cells is brain injury.

- 12. The method of claim 11, wherein the brain injury is produced by head trauma, stroke, anoxia, or ischemia.
- 13. The method of claim 4, wherein the FGF-2 is associated with a biocompatible matrix.
- 14. The method of claim 4, wherein the VEGFR-2 ligand is associated with a biocompatible matrix.
- 15. A method for treating a mammal having a neural tissue site with a deficient neuronal population comprising exposing the mammal to a VEGFR-2 ligand in the presence of FGF-2 to stimulate migration of neural progenitor cells to the neural tissue site.
- 16. The method of claim 15, wherein exposing the mammal to a VEGFR-2 ligand comprises administering a VEGFR-2 ligand to the mammal.
- 17. The method of claim 15, wherein the VEGFR-2 ligand is selected from the group consisting of VEGF, VEGF-E, and VEGF-C/D $_{\Delta N\Delta C}$.
- 18. A method for modulating the migration of neural progenitor cells comprising exposing the cells to a VEGFR-2 ligand and a compound capable of increasing the expression of VEGFR-2 on the cells.
- 19. The method of claim 18, wherein the compound is FGF-2.
- 20. A composition comprising a biocompatible matrix comprising FGF-2.
- 21. The composition of claim 20, wherein the biocompatible matrix further comprises a VEGFR-2 ligand.

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- 22. The composition of claim 20, further comprising neural progenitor cells.
- 23. The composition of claim 22, wherein the cells express VEGFR-1 and VEGFR-2.
- 24. The composition of claim 22, wherein the cells do not express PSA-NCAM, doublecortin, NeuN, NG2, A2B5, von Willebrand factor, RECA-1, or any combination thereof.
- 25. A pharmaceutical composition comprising a VEGFR-2 ligand, FGF-2 and a carrier.
- 26. The composition of claim 25, further comprising neural progenitor cells.